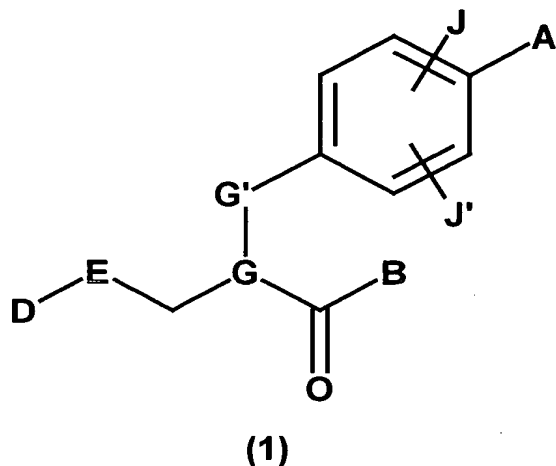


What is claimed is

1. A phenylpropionic acid derivatives of the following general formula (1) or pharmaceutically acceptable salts thereof:

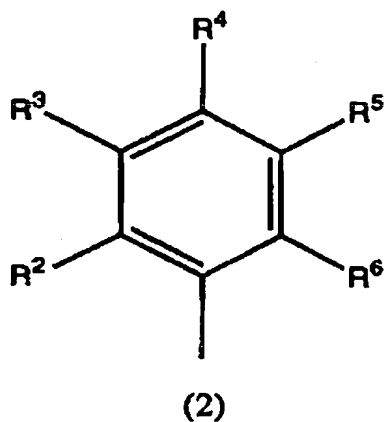


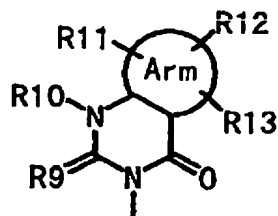
- 5 wherein A represents one of the following general formulae (2-1) to (2-6), -NR₁-Z, -NR₁-C(=O)-Z, -NR₁-SO₂-Z, -NR₁-C(=O)-NH-Z and -NR₁-C(=S)-NH-Z,

wherein R₁ represents a hydrogen atom, a lower alkyl group, a lower alkenyl group, a lower alkynyl group, a lower alkyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkyl group substituted with an aryl group(s) or a lower alkyl group substituted with a heteroaryl group(s), R₁ and Z may be bonded together to form a ring which may contain one or two oxygen, nitrogen or sulfur atoms,

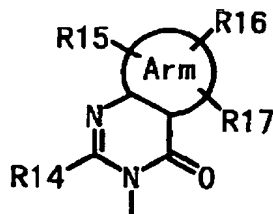
- 15 Z represents the following general formula (2), a lower alkyl group, a lower alkenyl group, a lower alkynyl group, a cycloalkyl group which may contain a hetero atom(s) in the ring thereof, an aryl group, a heteroaryl group, a lower alkyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkyl group

substituted with the general formula (2), a lower alkyl group substituted with an aryl group(s), a lower alkyl group substituted with a heteroaryl group(s), a lower alkenyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkenyl group substituted with an aryl group(s), a lower alkenyl group substituted with a heteroaryl group(s), a lower alkynyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkynyl group substituted with an aryl group(s) or a lower alkynyl group substituted with a heteroaryl group(s),

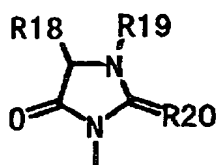




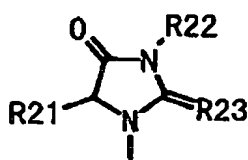
(2-1)



(2-2)



(2-3)



(2-4)



(2-5)

wherein R2 to R6, R10 to R17, R21, R22 and R24 to R28 may be the same or different from one another and each represent a hydrogen atom, a halogen atom, a hydroxyl group, a lower alkyl group, a lower alkenyl group, a lower alkynyl group, a cycloalkyl group which may contain a hetero atom(s) in the ring thereof, an aryl group, a heteroaryl group, a lower alkyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkyl group substituted with an aryl group(s), a lower alkyl group substituted with a heteroaryl group(s), a lower alkoxy group, a lower alkoxy group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkoxy group substituted with an aryl group(s), a lower alkoxy group substituted with a heteroaryl group(s), a cycloalkyloxy group which may contain a hetero atom(s) in the ring thereof, an aryloxy group, a heteroaryloxy group, a lower hydroxyalkyl

group, a lower hydroxyalkenyl group, a lower hydroxylalkoxyl group, a lower halogenoalkyl group, a lower halogeno alkoxyl group, a lower halogenoalkenyl group, nitro group, cyano group, a substituted or unsubstituted amino group, carboxyl group, a lower alkyloxycarbonyl group, a substituted or unsubstituted carbamoyl group, a lower alkanoyl group, an aroyl group, a lower alkylthio group, a lower alkylsulfonyl group or a substituted or unsubstituted sulfamoyl group,

Arm represents a benzene ring, a cyclic alkyl group or an aromatic ring containing 0, 1, 2, 3 or 4 hetero atoms selected from the group consisting of oxygen, sulfur and nitrogen atoms,

R9, R20 and R23 may be the same or different from one another and each represent an oxygen atom, a substituted or unsubstituted imino group or a sulfur atom,

R18 and R19 may be the same or different from one another and each represent a hydrogen atom, a lower alkyl group, a lower alkenyl group, a lower alkynyl group, a cycloalkyl group which may contain a hetero atom(s) in the ring thereof, an aryl group, a heteroaryl group, a lower alkyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkyl group substituted with an aryl group(s), a lower alkyl group substituted with a heteroaryl group(s), a lower alkenyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkenyl group substituted with an aryl group(s), a lower alkenyl group substituted with a heteroaryl group(s), a lower alkynyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkynyl group substituted with an aryl group(s), a lower alkynyl group

substituted with a heteroaryl group(s), a lower halogenoalkyl group, a lower halogenoalkenyl group, a lower hydroxyalkyl group, a lower hydroxyalkenyl group, or a substituted or unsubstituted lower aminoalkyl group, and R18 and R19 may be bonded together to form a
5 ring which may contain one or two oxygen, nitrogen or sulfur atoms, a substituent(s) thereof is a hydrogen atom, a halogen atom, a hydroxyl group, a lower alkyl group, a lower alkenyl group, a lower alkynyl group, a cycloalkyl group which may contain a hetero atom(s) in the ring thereof, an aryl group, a heteroaryl group, a lower alkyl group substituted with a
10 cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkyl group substituted with an aryl group(s), a lower alkyl group substituted with a heteroaryl group(s), a lower alkanoyl group, an aroyl group, a lower halogenoalkanoyl group, a lower alkyloxy group, nitro group, cyano group, a substituted or unsubstituted amino group, carboxyl
15 group, a lower alkoxycarbonyl group, a substituted or unsubstituted carbamoyl group, a lower alkylthio group, a lower alkylsulfonyl group or a substituted or unsubstituted sulfamoyl group,
B represents a hydroxyl group, a lower alkoxyl group, hydroxylamino group, amino group or a lower alkylamino group,
20 D represents a lower alkyl group, a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, an aryl group or a heteroaryl group, and each may have a substituent(s),
E represents C=O or CHOH,
G-G' represents CH-CH₂ or C=CH, and
25 J and J' may be same or different from one another and each represent a hydrogen atom, a halogen atom, a lower alkyl group, a lower alkyloxy

group or nitro group.

2. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 1, wherein A represents either one of the general formulae (2-1) to (2-6), -NR¹-Z, -NR¹-C(=O)-Z and -NR¹-SO₂-Z,

5 Z represents the general formula (2), a lower alkyl group, a lower alkenyl group, a lower alkynyl group, a cycloalkyl group which may contain a hetero atom(s) in the ring thereof, an aryl group, a heteroaryl group, a lower alkyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkyl group
10 substituted with the general formula (2), a lower alkyl group substituted with an aryl group(s) or a lower alkyl group substituted with a heteroaryl group(s),

B represents a hydroxyl group or a lower alkoxy group, and

D represents a lower alkyl group, a cycloalkyl group(s) which may contain
15 a hetero atom(s) in the ring thereof, an aryl group or a heteroaryl group, and each may have a substituent(s).

3. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 1, wherein E represents C=O and G-G' represents CH-CH₂.

20 4. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 2, wherein each of J and J' is a hydrogen atom.

5. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 4, wherein A represents the general
25 formulae (2-1) to (2-6).

6. The phenylpropionic acid derivatives or pharmaceutically acceptable

salts thereof according to claim 4, wherein A represents -NR1-C(=O)-Z .

7. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 1, wherein A represents either one of the general formulae (2-1) to (2-6), -NR1-Z , -NR1-C(=O)-Z and $\text{-NR1-SO}_2\text{-Z}$,

5 Z represents the general formula (2), a lower alkyl group, a lower alkenyl group, a lower alkynyl group, a cycloalkyl group which may contain a hetero atom(s) in the ring thereof, an aryl group, a heteroaryl group, a lower alkyl group substituted with a cycloalkyl group(s) which may contain a hetero atom(s) in the ring thereof, a lower alkyl group substituted with the general formula (2), a lower alkyl group substituted with an aryl group(s) or a lower alkyl group substituted with a heteroaryl group(s),

B represents a hydroxyl group or a lower alkoxy group,

E represents C=O ,

15 G-G' represents CH-CH_2 ,

each of J and J' is a hydrogen atom, and

D represents an aryl group or a heteroaryl group, and each may have a substituent(s).

8. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 7, wherein A represents either one of the formulae (2-1) to (2-6).

9. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 7, wherein A represents -NR1-C(=O)-Z ,

Z represents the general formula (2) wherein R2, R3, R4, R5 and R6 may

25 be the same or different from one another and each represent a hydrogen atom or a halogen atom, a cycloalkyl group which may contain a hetero

atom(s) in the ring thereof or a heteroaryl group.

10. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 8, wherein A represents the formula (2-1).

11. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 8, wherein D represents an aryl group or a heteroaryl group which may have a substituent(s).

12. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 10, wherein D represents an aryl group or a heteroaryl group which may have a substituent(s).

13. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 12, wherein D represents a phenyl group or pyridyl group having the substituents on the second position and the sixth position thereof and the substituents thereof are a halogen atom or a lower alkyl group.

14. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 1, wherein A represents the formula (2-1), Arm represents a benzene ring, R9 represents an oxygen atom, R10 represents a lower alkyl group, and R11 to R13 represent a hydrogen atom, a halogen atom, a substituted or unsubstituted amino group, nitro group, a lower alkyl group, a lower alkenyl group, a hydroxyl group or a lower alkoxyl group.

15. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 7, wherein A represents the formula (2-1), Arm represents a benzene ring, R9 represents an oxygen atom, R10 represents a lower alkyl group, and R11 to R13 represent a hydrogen atom, a halogen atom, a substituted or unsubstituted amino group, nitro

group, a lower alkyl group, a lower alkenyl group, a hydroxyl group or a lower alkoxyl group.

16. The phenylpropionic acid derivatives or pharmaceutically acceptable salts thereof according to claim 13, wherein A represents the formula (2-

5 1), Arm represents a benzene ring, R9 represents an oxygen atom, R10 represents a lower alkyl group, and R11 to R13 represent a hydrogen atom, a halogen atom, a substituted or unsubstituted amino group, nitro group, a lower alkyl group, a lower alkenyl group, a hydroxyl group or a lower alkoxyl group.

10 17. A pharmaceutical composition containing a phenylpropionic acid derivative or a pharmaceutically acceptable salt thereof according to claim 1 as an active ingredient.

18. A pharmaceutical composition containing a phenylpropionic acid derivative or a pharmaceutically acceptable salt thereof according to
15 claim 7 as an active ingredient.

19. An $\alpha 4$ integrin antagonist containing a phenylpropionic acid derivative or a pharmaceutically acceptable salt thereof according to claim 1 as an active ingredient.

20. An $\alpha 4$ integrin antagonist containing a phenylpropionic acid
20 derivative or a pharmaceutically acceptable salt thereof according to claim 7 as an active ingredient.

21. A therapeutic agent or preventive agent for inflammatory diseases in which $\alpha 4$ integrin-dependent adhesion process participates in the pathology, which contains a phenylpropionic acid derivative or a
25 pharmaceutically acceptable salt thereof according to claim 1 as an active ingredient.

22. A therapeutic agent or preventive agent for inflammatory diseases in which $\alpha 4$ integrin-dependent adhesion process participates in the pathology, which contains a phenylpropionic acid derivative or a pharmaceutically acceptable salt thereof according to claim 7 as an active ingredient.

23. A therapeutic agent or preventive agent for rheumatoid arthritis, inflammatory bowel diseases, systemic lupus erythematosus, multiple sclerosis, Sjögren's syndrome, asthma, psoriasis, allergy, diabetes, cardiovascular diseases, arterial sclerosis, restenosis, tumor proliferation, tumor metastasis and transplantation rejection, which contains a phenylpropionic acid derivative or a pharmaceutically acceptable salt thereof according to claim 1 as an active ingredient.

24. A therapeutic agent or preventive agent for rheumatoid arthritis, inflammatory bowel diseases, systemic lupus erythematosus, multiple sclerosis, Sjögren's syndrome, asthma, psoriasis, allergy, diabetes, cardiovascular diseases, arterial sclerosis, restenosis, tumor proliferation, tumor metastasis and transplantation rejection, which contains a phenylpropionic acid derivative or a pharmaceutically acceptable salt thereof according to claim 7 as an active ingredient.